Pro/file Updates

The Newsletter For ZX Pro/file Users

SINCLAIR QL COMPUTER EXAMINED

Not long ago I managed to get my hands on Sinclair's latest machine, the QL. A cursory inspection reveals a very powerful computer. It sports a nice full size keyboard. Unlike the TS1000, the case is large (18-3/4 by 5-3/8 inches). It encloses the 68008 microprocessor, 128K of ram, 48k of rom, 2 microdrive mass storage devices, 2 RS232 serial ports, and two rather non-standard "control ports" which Sinclair says can be used for joysticks (with proper adaptors, of course). Video output to a TV, composite monitor, and RGB is provided. 85 columns/ line.

The microdrives hold tiny matchbook size endless loop wafers. 100K can be stored on each. The built-in QDOS operating system which controls the drives is incredibly flexible and efficient. The weak point is the wafer. It is expensive and VERY fragile. Extreme care must be used when handling wafers or you can ruin them.

The QL's SUPER BASIC offers many exotic new command words like AUTO (line numbering), BEEPING (as in IF BEEPING THEN...), BLOCK, CIRCLE, CSIZE (size of characters printed), DATE$, DEFINE PROCEDURE, DEG (converts radians to degrees), KEYROW (yields instantaneous state of a row of keys), MODE (hi or lo res on screen), PAN (scroll left or right), RECOL (change color of objects on screen), RENUM (renumber Basic lines), and numerous others.

The QL represents a whole new ball game for old ZX/TS computerists. In coming months, SyncWare News will feature much more detail about this machine's ins, outs, and idiosyncracies.

NEW FULL SIZE PRINTER INTERFACE WORKS WITH "ZX"

Peter McMullin reports in SINC-LINK, the newsletter for the TS Users Club of Toronto (14 Richome Ct, Scarborough, ONT M1K-2Y1), that the EPROM SERVICES Centronics I/F and software driver works just fine with Pro/File. This is good to know since the Memotech interface is now a rarity. Contact Integrated Data Systems, 30 Brookmount Rd, Toronto, ONT M4L-3N1 for info.

COMPUSA DISK IMPLEMENTATION OF PRO/FILE AVAILABLE

Anthony John Oresteen, 452 Orion, Batavia, IL 60510, is offering an upgraded version of Pro/File which works on the Compusa disk drives. In addition to a "Print all files after..." routine (see story inside), he has added DATE and NUMBER OF FILES USED functions. Updates subscribers can get the program by sending him a blank diskette, SASE, and $5.00. For info, call (502) 942-1326.

PRINT ALL FILES AFTER....
Anthony J. Oresteen

I use an expanded 64K version of ZX Pro/File to maintain a large mailing list of over 500 names. A problem that I have encountered is that my printer sometimes jams during a label run, and it always seems to happen at around the 400th file. After stopping the program and clearing the printer I have to restart ZX Pro/File from the beginning. The first 400 labels were fine, but there is no way to jump to the file where the printer jammed and just continue printing.

I implemented this new command such that after searching for a file, the program would print all files following. Thus you can search for a file where the printer jammed, hit "P", and the computer continues the printing process.

To add this feature you must add 10 lines of BASIC and modify one existing line. The main body of the subroutine is placed starting at line 2500 as follows:

```
2500 LET C=1
2510 LET X$=" "
2515 PRINT AT 0,0,X$
2520 LET Y$=" "
2530 LET X$=X$
2540 RAND USR 16820
2550 POKE 16598,PEEK 16507
2560 POKE 16599,PEEK 16508
2570 GOTO 110

Perco Disk Users NOTE
Replace  16507  and  16508  in
lines 2550 & 2560 with  16622
and  16623  respectively.
```

All that is left to do is to modify the option menu in line 220. Add:

```
"P" TO PRINT ALL FILES FOLLOWING
```

to the end of line 220. Then add the jump command as follows:

```
233 IF Y$="P" THEN GOTO 2500
```

Now when the search menu is displayed, you have the option of printing all files following the found file, including the found file. This option is handy for repairing the damage caused by a bum printer, but it is also very useful for printing out all newly added files of a database if you want just a printout of updated or new data.

Please note that if you have only 16K of ram you will need to reduce D$ to allow room for the changes. As I use a 64K ram with D$ set to a size of 40,000 slots I have not computed the exact amount that the array must be shortened. Good luck and happy computing!

LPRINT MORE THAN 32 COLUMNS
(What do ya know about that! Dept.)

John R. Willi
10305 Dodge Ln, Louisville, KY 40272

I have long wanted to expand the print capability of Pro/File from the 28 characters per line to 80 in order to provide a more concise method of printing church address files and library catalogs for distribution in a format other than Roledex cards or labels on Roledex cards.

It was serendipitous to find that using the Timex 2040 pokes even though I was using a big printer made it possible to print across an entire sheet of paper! The method described here works with the Memotech Centronics Printer Interface and a Star Gemini 10 printer (it also works with my Prowriter. -ed).

By poking 16677,0 and 16681,118 (see page 43 of the Pro/File manual to see where these come from) the computer will happily ignore the carriage return instruction--thus printing as wide as you wish.

By way of illustration, to get 80 columns count each line selected for printing as having 28 characters beginning with the first line selected. This means that on one 80 column line you can print 2 full lines displayed on the TV plus a third line which is limited to 24 characters. The initial results may look odd because all 28 characters of a line will be printed even if most of them are blank spaces.

There is no restriction on the selection of the first line to be printed, nor the number of lines (except as limited by the print width). But the number of spaces between lines seems to be stuck at 2. Don't forget to poke back 16677,197 and 16681,126 for regular Pro/File printing.

FILE ALIGNMENT
by
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20 N. Leonora #216, Tucson, AZ 85711

This enhancement will help you keep data in each file "aligned" for easier viewing and printing. This is done by calling up a form you have on file and then entering the data over the top of it.

By entering the lines in listing 1, a form can be entered as a normal file. It can then be called up each time you wish to add data by entering the search command:

A/(form name)

Pro/File will then conduct a multi-word search for the words "FORM" and the name of the form. Therefore, both words must be present in the form. After it is found and printed on the screen, control is then sent to the normal ADD/FILE routine. When adding the new file the labels will be overwritten.

If you have the room and you wish to keep the labels on the new file without having to re-enter them, you'll also need to enter listing 2. What this addition does is read the last two characters on each line, then it erases them. These two characters should hold the desired TAB setting for that line. When the form is called up using "A/form name", and you enter a line, that line will be printed starting at the TAB setting encoded in the form. The problem arises that now each line has a different number of spaces available for data. Lines 503 and 553 will solve this problem by setting up a guide line on the bottom of the screen showing how many spaces are available.

Setting up the form is done by entering a file consisting of the word "FORM" and some name you wish to give the form. Also the last two characters of each line must hold the desired TAB setting for that line. Forms can be edited as a normal file if it is searched for by some command other than "A/form name".

Using both enhancements, I've safely got an otherwise unaltered Pro/File to operate with D$ dimensioned to 10400. Add this modification as follows:

1. Stop the program using Shifted 1, STOP, ENTER.
2. Add the first or both listings.
3. Dim D$(10400) and re-enter the variables as described on page 40 of the manual.

NOTE: Lines 501, 507, 553, 560 and 562 are all updated lines, the rest are new entries.

File Alignment-Listing 1

```
24 LET F=0
30 IF LEN X$>2 THEN GOSUB 800
170 IF F AND B<>1 THEN GOTO 500
810 IF X$( TO 2)<>"A/" THEN RETURN
820 LET F=1
830 LET X$="FORM"+X$(2 TO )
850 RETURN
```

Listing 2

```
29 DIM F(12)
131 IF F AND B<>1 THEN GOSUB 360
501 PRINT AT 0,0;"ADD/FILE--ENTER TITLE";"FORM "+X$(2 TO )
    AND F;AT 3,1;"*"
503 LET G$="    5    1    5
             2    5
507 IF LEN Y$+F>=29 THEN PRINT
AT 20,0;"DATA TOO LONG--RE/INPUT"
551 LET F=F(Y-2)+(NOT F(Y-2))+
Y=3)
553 PRINT G$;AT 21,0;G$( TO 29-
F);"  ";AT Y,0;"■"
557 REM      DELETE THIS LINE
560 IF LEN Y$+F<29 THEN PRINT A
T  ;  $      AT Y,F,G$( TO 31-F  AT
  ;F  $
562 LET Y=Y+(Y<14)-(LEN Y$+F>=2
9)
360 LET G=PEEK 16398+256*PEEK 1
6399
362 LET G$=CHR$ PEEK (G-2)+CHR$
PEEK (G-1)
364 IF G$(1)>"." AND G$(1)<"A"
THEN LET F(F)=VAL G$(1)
365 IF G$(2)>"." AND G$(2)<"A"
THEN LET F(F)=10*F(F)+VAL G$(2)
870 POKE G-2,0
875 POKE G-1,0
880 LET F=F+1
890 RETURN
```

ZX SUPER FILE???

R.C. Combes from Atlanta, GA writes: Pro/File Updates has presented a proliferation of goodies which should be incorporated into a Super version of ZX Pro/File. This would mean a rewrite of the manual, of course. If you need help (for free) on a project of this sort, I would be glad to participate in any way which might seem appropriate.

Response: Well, R.C., thanks very much for the offer. I appreciate your willingness to help. I agree that all the enhancements that readers have offered in Updates have been very useful, but they have produced a program which is now becoming rather haphazard in form. I would very much like to clean up the mess, but to tell you the truth, I'm a little tired of manual writing. After spending the past year writing the manual for Pro/File 2068--all while owners of the program waited (some not so patiently) for its completion--I want to take a break. Also, I'm not so sure there's sufficient interest in a new SUPER FILE to justify the effort from a financial standpoint. I'll tell you what. Let's get some "reader response" in from others. How 'bout it readers, what are YOUR thoughts?

A VERY INTELLIGENT AERCO PRINTER INTERFACE
by
Jeffrey D. Moore
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This started out as an inquiry to see if anyone had produced a software patch to allow the AERCO Centronics printer interface to function with Pro/File. However, after considering the problem, analysing the program, and chastising myself for being so lazy as to not want to tackle what appeared to be a relatively simple problem, I wrote a patch to enable the hardware to work with the software. Here is the result of my labor.

The patch makes a few changes to the Pro/File COPY routine located at 4122 hex and adds 22 more bytes to the program length (5 bytes for the BASIC line, 16 for the MC) to complete the machine code routine for the patch. To make the patch yourself, follow these steps:

1. Load ZX Pro/File. When the Main Menu appears, break out of the program by pressing SHIFT 1 (EDIT) and then SHIFT A and ENTER (STOP)

2. Although its not usually necessary some people may need to reduce the length of D$ by 22 bytes (see UPDATES vol. 1, #1 for the procedure).

3. LIST line 16. Then bring it down to the bottom of the screen to edit it. Change the line number from 16 to 15, and press ENTER.

4. Now enter the following lines exactly as written:

```
16 REM 1234567890123456
9900 FOR X=16941 TO 16956
9901 INPUT Y
9902 POKE X,Y
9903 NEXT X
POKE 16677,229
POKE 16681,45
POKE 16682,66
```

5. Type GOTO 9900, then ENTER. When the cursor appears, enter the columns of numbers listed below. Go down the left column first, then the right.

33	32
0	252
0	68
1	77
33	225
0	195
9	67
21	44

6. After the last number is entered, delete lines 9900 through 9903 and type GOTO 17, then ENTER to start the Pro/File up.

7. When the Main Menu re-appears, SAVE Pro/File to save the changes you just made, then set your DEFP and try copying a file. If too many spaces are printed at the end of a printout (the space between files function), break out of the program again and change line 3035 to read as follows:

```
3035 FOR X=1 TO S-n
```

"N" in this case represents the number of extra lines greater than S that are being printed.

SPECIAL NOTE:
Aerco is currently marketing an "improved" version of the EPROM in their Very Intelligent Centronics I/F. The improved PROM provides alternative entry points into the lprint machine code ROM subroutine, making the above modifications to Pro/File unnecessary. Other improvements include redefinition of some print characters and lprinting the inverse space character as a normal space. All new units currently sold by Aerco have the improved Eprom. Owners of the older units who wish to upgrade their interfaces may do so by purchasing the new EPROM. For details contact Monty or Til at AERCO. Phone: (512) 451-5874. At last report, Aerco will trade the new EPROM for the old one plus an exchange fee of approximately $20.

"DO FILES" REVISITED

Perhaps the most powerful, but also the most under used and misunderstood function in the Pro/File program is the "DO File". You may recall reference to this beast in the manual. By adding two new program lines:

```
116 LET Q=1+(PEEK 16507+256+PE
EK 16508)
118 IF PEEK Q=13 THEN IF A$=CHR
$ PEEK (Q) +CHR$ PEEK (Q+1)+CHR$
PEEK (Q+2)+CHR$ PEEK (Q+3) THEN
GOTO 5000+VAL CHR$ PEEK (Q+4)
```

it is possible to create "special" files which instead of holding data you would look up, trigger the computer to do something besides just display information on the TV.

This kind of file is called a "DO FILE". You can create and use them for just about anything. You are limited only by your imagination (ever heard THAT before?). There is a small hitch, however. "DO FILES" provide the means of jumping out of Pro/File--they do not actually perform any specific task. THAT must be provided by you.

Essentially, you must write a short program that performs the task you want. Then you incorporate it into the Pro/File program,

starting at line 5000. Finally, you create a "DO FILE" which serves as a bridge to your routine. Whenever you want to run your program lines, you look up the "DO FILE" just as you would any other piece of data. But in this case, lines 116 and 118 above cause the computer to GOTO your program.

In order to work properly a "DO FILE" must be added to your data base in the correct format. The top line of the file, as always, starts with the asterisk. Following that, the file MUST have a dollar sign ($), three symbols which act as a name, and a one digit number (0-9). You can put more data on other lines of a DO FILE, but it isn't necessary. But if the top line does not have the four basic features just described, it won't work. Examples of correctly entered DO FILES are:

    *$FIL1
    *$CAL2
    *$PRN3

The one digit numbers in these files tell the computer where to go to execute your program lines. A zero in this slot will send the computer to line 5000; a one sends it to 5001; a two, 5002; a three, 5003; etc.

In this way you can have 10 different DO FILES. Each sends the computer to a different line number. You may wonder how in the world the computer can do anything really useful with a DO FILE because each seemingly has only one program line available to it. All 10 DO FILES are crowded into a space of just 10 program lines! The problem is not as bad as it appears. Typically what you do is place GOTO commands at lines 5000 to 5009. They might look like this:

5000 GOTO 6000
5001 GOTO 4000
5002 GOTO 4500
5003 GOTO 5100
etc.

Ever hear those machine code junkies talk about jump tables? Well, that's exactly what you have here.

Anyway, once you have everything set up properly, you run the DO FILE by searching for it. There is a right way and a wrong way to search out this kind of file too. Here's the right way.

When the Main Menu is on the screen, enter a search command consisting of the dollar sign followed by the three character name representing the DO FILE you want to access. You DO NOT type the number. Therefore, the search commands below would all be correct:

$FIL
$CAL
$PRN

The DO FILE is activated only if it is entered and searched correctly. If the rules are not followed strictly, nothing happens. This acts as a form of protection. You wouldn't want to accidently activate a DO FILE if it could damage your data. If you want to call the file up on the screen to edit it, you can safely do so by searching for it using an "illegal" search command such as FIL, CAL, or PRN. If you omit the dollar sign from the search command, you can put the file on the TV for viewing or editing, but the function won't turn on.

What are some useful DO FILE applications? Here are a few that come in handy for me.

BLOCK DELETE "DO FILE"
PURGES UNWANTED DATA

This function allows you to clear out files that you no longer want. If you use Pro/File to catalog your stamp and coin collection, for example, and you find yourself running out of room, you could use the Block Delete function to "split" your data base in two.

After adding the modification, you could delete out all your stamps, leaving just the coins. Once this was saved on tape, you could reload the old data base and purge the coins. This would leave only the stamps. You would effectively take one big data base and convert it into two smaller ones.

To add the Block Delete function break into the program listing and reduce file capacity by 200 bytes. Then add these program lines:

```
 219 IF C=-1 THEN RETURN
5000 GOTO 5100
5001 GOTO 5200
5100 LET C=-1
5105 PRINT "BLOCK DELETE",,"ENTE
R SEARCH COMMAND","Q-WILL QUIT"
```

```
5110 INPUT Y$
5115 IF Y$="Q" THEN GOTO 17
5120 CLS
5122 LET X$=Y$
5125 GOSUB 36
5130 IF B=1 THEN GOTO 17
5135 LET P=P-USR 16624
5140 LET D$(P+1 TO P+2)=CHR$ 23+
CHR$ 134
5150 GOTO 5120
```

If you have not already done so, add lines 116 and 118 to the program as well.

If you use the AERCO disk system, replace the numbers 16507 and 16508 with 16622 and 16623 respectively.

Now GOTO 17 to start the program running and create the necessary DO FILE. To do this, press "A" when the Main Menu is on the screen and add this file:

    *$DEL0

Now you can Block Delete chunks of data by following this procedure. First, enter the search command, $DEL, to turn the mode on.

If everything is entered correctly, you'll see line 5105 printed on the TV screen. Next, enter a search command for the files you want to delete. If you type "Q" the computer aborts the delete routine and returns you to the main menu. But if you type in any other word, every file that has this word in it will be deleted. On completion, the main menu comes up on the screen.

This DO FILE will handle both single and multi-word search commands, as well as the NOT search given in Updates 1:1. Note however, that if you want to use it in conjunction with any past enhancements which reserve machine code space in the first 255 characters of D$, you must change line 5140 to that shown below:

    5140 LET D$(256+P+1 TO 256+P+2)=
    CHR$ 23+CHR$ 134

The NOT SEARCH makes Block Deletes particularly useful. It will let you delete every file EXCEPT the word you type in response to line 5110.

A couple important points should be raised. First, remember you are dealing with a function that can erase a lot of valuable data. One wrong move can do a lot of damage. is a very good idea to play around with this DO FILE on "test" data just to get a feel for what's going on BEFORE you go to work on the really important stuff.

Second, Block Deletes can take up to several minutes to be completed. Often, literally hundreds of files must be searched and erased, so don't be surprised if the screen goes blank for an extended period, particularly during NOT search deletes. Get upd and get yourself a snack, and thank your lucky stars you don't have to do it all by hand!

THE LABEL MAKER "DO FILE"

Here's a neat utility that I use all the time to make return address labels. You can change it accordingly to print your own name and address, or whatever other information you need.

Add lines 5001, and 5200 to 5295 to your DO ILE equipped version of Pro/File. Then create this new file to trigger the label maker into action:

*$LBL1

Whenever you search for this file using "$LBL" as a search command, the computer breaks out of its normal cycle and executes the lines beginning at 5200. Here, the computer asks you how many return address labels you want. You type in a suitable number, then sit back and watch your printer crank 'em out. After the last label is made, the computer returns to the Main ZX Menu.

```
5200 PRINT "LABELS...HOW MANY? "
5210 INPUT X
5220 FOR X=1 TO X
5230 LPRINT "THOMAS B. WOODS"
5240 LPRINT "P.O. BOX 64"
5250 LPRINT "JEFFERSON, NH 03583
"
5260 LPRINT
5270 LPRINT
5280 LPRINT
5290 NEXT X
5295 GOTO 17
```

"DO" THE MENU APPROACH

There is nothing to prevent a "DO FILE" from branching to a menu of options. Leonard G. Holmes, a clinical psychologist in Williamsburg, VA, uses Pro/File to hold billing information and he uses this "DO" menu technique to print out various kinds of statements.

In this portion of his "Statement Listing", Holmes causes his DO FILE to jump to line 8300. Here, a menu is printed and he can make his selection. Lines 8320 to 8336 handle further branches to various functions depending on the menu item chosen.

```
5001 GOTO 8300
8300 LET BILL=8300
8304 PRINT "WHAT DO YOU WANT TO
DO?"
8308 PRINT AT 5,5,"1. PRINT A ST
ATEMENT";AT 7,5;"2. PRINT INSURA
NCE INFO";AT 9,5,"3. PRINT ADJUS
TMENT INFO";AT 11,5;"4. RETURN T
O MAIN MENU"
8312 PRINT AT 20,2,"▓▓ ▓▓ ▓▓▓▓
▓▓▓ ▓▓ ▓▓▓▓"
8316 INPUT Z$
8320 IF Z$="1" THEN GOTO 8420
8324 IF Z$="2" THEN GOTO 8340
8328 IF Z$="3" THEN GOTO 8536
8332 IF Z$="4" THEN GOTO 17
8336 IF Z$<>"1" OR Z$<>"2" OR Z$
<>"3" OR Z$<>"4" THEN GOTO 8316
```

THE DISPLAY/PAUSE/DISPLAY "DO" FILE

Finally, this routine will make Pro/File search and display a file. Then, it automatically goes to the next file without the need press ENTER of the Display Options. This could be useful where automatic displays of information are required such as in store window demonstrations or in a "flash card" type setting for youngsters.

Add these lines:

```
219 IF C=-1 THEN RETURN
5003 GOTO 5300
5300 LET C=-1
5310 PRINT "FLASHER... INPUT SEA
RCH COMMAND"
5320 INPUT X$
5330 PRINT "NOW ENTER PAUSE FACT
OR"
5340 INPUT DELAY
5350 SLOW
5360 CLS
5380 GOSUB 36
```

```
5390 IF B=1 THEN GOTO 660
5400 FOR X=1 TO DELAY
5401 IF INKEY$="Q" THEN GOTO 543
0
5402 NEXT X
5405 CLS
5410 GOSUB 115
5420 GOTO 5390
5430 LET C=0
5440 GOTO 220
```

Add a new file to turn this mode on. It could
be:

*$REP3

Whenever you search for this file using
"$REP" for a search command, the computer
will ask you to input a search command and a
pause factor. Once done, you get automatic
flashing of matching files. The pause factor
determines the length of time between each
display. Input a number in response to the
pause factor prompt. The higher it is, the
longer the delay. If you need to stop the
sequence of displays, hold down the "Q" (for
QUIT) key until the Display Options appear.

WHAT TO DO FOR THE RS232?

Are there any Memotech RS232 serial
interface owners out there who have ZX
Pro/File running through this device to
their serial printers? Jerome C. Friedman
in Parsippany, NJ would like to learn how
to do it.

UNCLASSIFIED

THE ZX COUPON FILE
by Robert Greenberg

I use the PRO/FILE as a coupon file with
headings to match my wife's coupon holder.
The sample below shows how the files are
organized.

Entering a search by general heading, by
brand name, or by expiration date will tell
me at a glance just what coupons we have
or which ones we should use before they
expire.

```
+BEAUT
LEGGS PANTYHOSE
.50 EXP 06 84


+SNACK
KEEBLER CLUB CRACKERS
.15 EXP 06 84
MISTER SALTY PRETZELS
.15(2) EXP 04 84
WISE COTTAGE FRIES
.20 EXP 06 84
FRITO LAY CHEE+TOS
.10 .12 EXP NO


+SNACK
JIFFY POP POPCORN
.10 EXP 06 84
LIFESAVERS
FREE EXP NO


+COFFEE-TEA
SANKA DECAF
.40(1) .50(2) EXP 12 84
SALADA BAGS
.25(2) EXP NO
CHOCK FULL O NUT-INST
.50(1) EXP 06 84


+MISCL
BISQUICK
.12 .15 EXP NO
CRISCO SHORTENING
.25 EXP NO
SHAKE £ BAKE
.20(2) EXP 06 84
.20(2) EXP 06 84


+DAIRY
SARALEE FRUIT PIE
.20 EXP NO
SARALEE POUND CAKE
.30(1) EXP 06 84
```

I also intend to make up a "Where to Com-
plain" file based on information in a recent
Money Magazine and two government pub-
lications. (all fly-by-nighters beware, ZX
Pro/File is watching! -tw)